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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,999	11/15/2006	William Stringfellow	AGC.P.US0001	9142

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09/17/2008

EXAMINER

BROWN, COURTNEY A

ART UNIT

PAPER NUMBER

1616

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/560,999

**Applicant(s)**

STRINGFELLOW, WILLIAM

**Examiner**

COURTNEY BROWN

**Art Unit**

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 11/1/2007 and 11/5/2007.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Receipt of Amendments/Remarks filed on May 5, 2008 is acknowledged. Claims 1-29 are pending and are being examined for patentability.

#### ***Priority***

Priority to International Foreign Application PCT/US04/19847 and to Provisional Applications 60/492,224 and 60/493,622 filed on August 8, 2003 is acknowledged.

#### ***Information Disclosure Statement***

The Information Disclosure Statements (IDS) submitted on November 1, 2007 and November 5, 2007 have been considered by the examiner.

Rejections and/or objections not reiterated from the previous Office Action are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riego et al. (US 6,040,272) in view of Lucus (US 5,665,672), and further in view of Zobrist et al. (US 2,947,111).

### ***Applicant's Invention***

Applicant claims a method for applying a fungicide to a tree comprising applying a fungicide composition to the bark periderm of woody plants without mechanically penetrating or piercing the bark of the plant. The fungicide composition comprises: (a). a systemic fungicide which includes a phosphite compound that includes monoester phosphorous acids that is from about 10% to about 30% by weight phosphite; (b). a polyoxyethylene heptamethyl trisiloxane surfactant that is from about 0.003 to 0.05 parts by weight per part of systemic fungicide; and (c). water. Applicant additionally claims the composition as stated above comprising these optional components: (d). a surface active agent such as propylene glycol that is from about 0.0001 to 2 parts by weight; and (e). solvents selected from the group consisting of alcohols, glycols, and glycol esters. Applicant also claims a method for applying a fungicide to a tree comprising spraying the systemic fungicide composition on the bark periderm (which consist that portion between the root flare and the first branch) 50-75 grams of systemic fungicide to six feet of a tree, measured from the base, where the face has a diameter breast height of about six inches and 25-125 grams of the systemic fungicide composition to six feet

of a tree, measured from the base where the tree has a diameter breast height of about six inches to where it will run off the bark.

***Determination of the scope and the content of the prior art  
(MPEP 2141.01)***

Riego et al. disclose a herbicidal composition applied to bark in basal (bark periderm) and dormant stem regions of plants (abstract). Riego et al. disclose a composition that preferably comprises about 5-35% by weight polyoxyethylene heptamethyl trisiloxanes (column 3, lines 6-8 and column 5, line 33); 50-95% of a glycol or glycol ester such as diethylene glycol and propylene glycol (column 3, lines 22-25 and column 5, lines 50-52), and "pour point depressants" (solvents) such as methanol, ethanol, and n-propanol (column 7, lines 46-52). Riego et al. teach that the composition could be applied to the bark of basal stem portions of plants (bark periderm) employing backpack sprayers (column 7, lines 45-52 and column 8, lines 3-5). Additionally, in column 8, lines 49-52, Riego et al. teach applying the composition to the bark from the waist or knee height to ground level, and applying sufficient solution to wet the bark to the point of run-off.

***Ascertainment of the difference between the prior art and the claims  
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Riego et al. is that the instant invention requires the use of a systemic fungicide which includes a phosphite compound that includes monoester phosphorous acids in the composition. For this reason, the teachings of Lucas and Zorbist et al. are joined. Lucas teaches a fungicidal

composition that comprises a monoester salt of a phosphorous acid that is one part by weight (preferably aluminum ethyl phosphite) and an ethylene bisdithiocarbamate contact fungicide that is two parts by weight (see abstract). Additionally, Lucas teaches the use of a support such as a surfactant, and fluid such as water or alcohols in the composition (column 2, lines 55-67) and applying the composition by spraying a liquid formulation (column 4, lines 37-41). Zobrist et al. teach the use of liquid systemic fungicides and the spray application to trees (column 1, lines 27-35).

***Finding of prima facie obviousness***

***Rationale and Motivation (MPEP 2142-2143)***

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to combine the teachings of Riego et al., Lucas, and Zobrist et al. to devise a method for applying a fungicide to a tree comprising applying a fungicide composition to the bark periderm of woody plants without mechanically penetrating or piercing the bark of the plant. One would be motivated to combine these teachings because the compositions are similar (active compound, surfactant, water and other solvents). The addition of a monoester salt of a phosphorous acid improves the effectiveness of the fungicide by increasing its persistence or to complete the range of activity (Lucas, column 2, lines 39-59). Using a systemic fungicide allows the bark of the tree to completely absorb the composition. It would be prima facie obvious to combine these compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same

purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven 206 USPQ 1069, 1073. Thus, combining Riego et al., Lucas and Zobrist et al. as claimed in the instant invention, sets forth prima facie obvious subject matter

Additionally, it is routine optimization for one of ordinary skill in the art to adjust the amount of ingredients to optimize the desired results. In this case the weight percent ranges of the components of the composition and the application to the tree (to six feet of a tree, measured from the base, where the tree has a diameter breast height of about six inches) are routine optimization.

#### ***Examiner's Response to Applicant's Remarks***

Applicant's arguments filed on May 5, 2008 have been fully considered but they are not persuasive. Applicant argues that through-bark penetration of fungicides into the vascular system of trees does not exist in the prior art. Applicant also points to the fact that Zobrist offers an alternative to mechanical penetration of bark by constructing an elaborate system of wraps which is highly distinct from the claimed invention and is not analogous to the teachings of either Riego or Lucas. However, the secondary teaching of Zobrist was brought in to show that the use of systemic fungicides for applying to the bark periderm of woody plants without mechanical penetration or piercing was known at the time of the instant invention. Hence, whether the application is an elaborate system of wraps would not preclude one of ordinary skill from its selection.



Next, Applicant argues that Zorbist does not teach, suggest, or contemplate the use of organosiloxane surfactant or the use of a phosphite fungicide. However, Riego et al. teach a composition applied to bark in basal (bark periderm) and dormant stem regions of plants (abstract) that preferably comprises about 5-35% by weight polyoxyethylene heptamethyl trisiloxanes (column 3, lines 6-8 and column 5, line 33). Additionally, Lucus teaches systemic fungicides which include phosphite compounds.

Applicant also argues that the teachings of Lucus undermine the patentability of the claimed invention because the systemic fungicides taught by Lucus are formulated for turf grass. However, the secondary teaching of Lucus was brought in to show that the use of phosphite systemic fungicides was known at the time of the instant invention. Hence, whether the formulation is for turfgrass would not preclude one of ordinary skill from its selection.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Therefore, the Examiner has established that the claimed method of applying a systemic fungicide to a tree is *prima facie* obvious over Riego et al. in view of Lucus, and further in view of Zorbist et al.

***Examiner's Response to the 37 C.F.R. Declarations  
Of Todd O'Connell and Franklin E. Sexton***

The 37 C.F.R. Declarations of Todd O'Connell and Franklin E. Sexton have been fully considered but they are not persuasive. The teachings of Zorbist, when considered as whole, support the patentability of the claimed invention through teaching that through-bark penetration of fungicides into the vascular system of trees has not been achieved. Zorbist offers an alternative to mechanical penetration using systemic fungicides for applying to the bark periderm of woody plants without mechanical penetration or piercing. Riego et al. teach a composition applied to bark in basal (bark periderm) and dormant stem regions of plants (abstract) that preferably comprises about 5-35% by weight polyoxyethylene heptamethyl trisiloxanes (column 3, lines 6-8 and column 5, line 33). Lucas teaches systemic fungicides which include phosphite compounds.

Additionally, the 37 C.F.R. Declarations of Todd O'Connell and Franklin E. Sexton are not persuasive because they are opinion affidavits and are therefore are accorded no patentable weight.

***Conclusion***

None of the claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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